

- Abstract

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Association of meat and dairy consumption with normal weight metabolic obesity in men: the Qazvin Metabolic Diseases Study.

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Abstract

BACKGROUND:

Insulin resistance (IR) is not limited to obese individuals. Normal weight individuals may also be insulin resistant. The aim of this study was to determine the association of lifestyle and diet patterns with IR in normal weight Iranian men.

METHODS:

This cross-sectional study was conducted in 232 men with a body mass index lower than 25 kg/m² (aged 20-72 years old) between September 2010 and April 2011 in Qazvin, Iran. Metabolically obese normal weight (MONW) was defined as IR using the homeostatic model assessment (HOMA). The optimal cut point to diagnose IR was the 80th percentile of HOMA-IR values in normal subjects. The HOMA-IR cut point was 2.48. Dietary pattern was assessed by a semi-quantitative food frequency questionnaire. Data were analyzed using backward logistic regression and ANCOVA.

RESULTS:

Fat and meat consumption and energy intake in subjects with MONW were more than subjects without MONW. Each serving of meat consumption was associated with three times increased risk of MONW (OR: 3.06), while each serving of dairy consumption was associated with 56 % lower risk of MONW with borderline significance (OR: 0.64). Adjusted mean of HOMA-IR in the first tertile of dairy consumption was significantly higher than other tertiles. Adjusted HOMA-IR value in the third tertile of meat consumption was significantly higher than the second tertile.

CONCLUSION:

Higher meat consumption was associated with MONW in men. Higher meat consumption and lower dairy consumption were associated with higher means of HOMA-IR.

KEYWORDS:

Body mass index; Diet; Insulin resistance; Meat; Milk

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